Federal Aviation Administration – William J. Hughes Technical Center

National Airport Pavement Test Facility (NAPTF)

Contract No: 692M15-20-D-00004

ARA TO 005 Structural Airport Pavement NDT and Evaluation

5.1.1.2 CC9 NDT Data Collection (Task 4.1.1.2)

CC9 NDT Survey Notes

Device: GPR – Cart

Survey: Trafficking 20211004

Date: 10/19/2021, 10/21/2021

Operators: Douglas Evans

Folder Name: 20211019 GPR Cart CC9 Traffic Raw Data

File Format: DZT

**General Notes**

* Transverse data collected along the ten (10) Standard Transverse Test Lines.
  + Cart is aligned with white transverse line and direction of travel is from Offset -26.66 ft. to +26.66 ft. (North to South).
  + Survey starts and stops with the antenna centered on the yellow longitudinal edge of test area lines.
* Longitudinal data collected along center of North and South wander patters at Offsets -15.00 ft. and +15.00 ft., respectively.
  + Direction of travel is from West to East.
  + Survey starts and stops with the antenna centered on the transverse lines marking Stations 0+00 and 3+00.
* Data collected with 900 MHz and 2.6 GHz ground-coupled antennas.
* Calibration of DMI performed before data collection with each antenna and value recorded.

**Settings**

Parameter 900 MHz Antenna 2.6 GHz Antenna

Transmit Rate 100 KHz 100 KHz

Samples/Scan 512 512

Bits/Sample 16 16

Range 15 ns 8 ns

Dielectric 4.00 (default) 4.00 (default)

Rate (Scans/Second) 100 (default) 100 (default)

Scans/Unit 30 scans/ft. 90 scans/ft.

Gain Points 3 2

Vertical Low Pass – LPIIR 2500 MHz 0

Vertical High Pass – HPIIR 225 MHz 10 MHz

Vertical Low Pass – LPFIR 0 5000 MHz

Vertical High Pass – HPFIR 0 400 MHz

Stacking Filter 5 5

**DMI Calibration**

Dataset Distance 900 MHz Antenna 2.6 GHz Antenna

Transverse 10.00 ft. -491.80 -491.80

Longitudinal 10.00 ft. -492.00 -494.80

**Data Collection File Numbers**

Transverse Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Station 0+15 140 150

Station 0+30 141 151

Station 0+75 142 152

Station 0+90 143 153

Station 1+35 144 154

Station 1+50 145 155

Station 1+95 146 156

Station 2+10 147 157

Station 2+55 148 001

Station 2+70 149 002

Longitudinal Survey Lines

Location 900 MHz Antenna 2.6 GHz Antenna

Offset -15.00 (North) 005 003

Offset +15.00 (South) 006 004

**Survey Notes**

* Dataset 20211004 includes 8 days of trafficking over 2 weeks (10/04 – 10/14).
* Compact flash drive filled up at File 157. A backup of the drive was made and the drive’s COMMON.PRJ folder was cleared before continuing.
* Transverse and longitudinal data was taken on separate days, 10/19/2021 and 10/21/2021 respectively. This necessitated different distance calibrations.